LEE, LILY [LEE.LILY@EPA.GOV] From: 6/6/2018 12:25:40 AM Sent:

Chesnutt, John [Chesnutt.John@epa.gov] To:

FW: Parcel D-1, FSSR Ship Berths - FW: bollard pictures Subject: Attachments: App M D1 ShipBerth Dft FSSR Elevated Alpha Activity.pdf

Importance: High

----Original Message----

From: LEE, LILY

Sent: Thursday, October 26, 2017 10:24 AM

To: Karla Brasaemle (kbrasaemle@techlawinc.com) <kbrasaemle@techlawinc.com>

Subject: FW: Parcel D-1, FSSR Ship Berths - FW: bollard pictures

Importance: High

----Original Message----

From: Kayaci, Hamide G CIV [mailto:hamide.kayaci@navy.mil]

Sent: Thursday, October 26, 2017 10:01 AM

To: LEE, LILY <LEE.LILY@EPA.GOV>

Subject: FW: Parcel D-1, FSSR Ship Berths - FW: bollard pictures

Importance: High

Hi Lily,

Our contractor prepared the following to respond to your concerns about the risk from Po-210. Unlike Ra226, Po-210 poses risk only when ingested. See the following for more in depth explanation.

Thanks, Hamide

----Original Message----

From: Hess, Rachel [mailto:RHess@GilbaneCo.com]

Sent: Thursday, October 26, 2017 9:24 AM To: Kayaci, Hamide G CIV

Cc: Acharya, Arvind; Cooper, Jerry

Subject: [Non-DoD Source] FW: Parcel D-1, FSSR Ship Berths - FW: bollard pictures

Importance: High

Hamide,

Based on subject line of EPA's email, it appears that EPA is requesting justification for a statement found in the Ship Berths FSSR concerning bollards and Po-210 found on the bollards not posing a shortterm human health risk problem from exposures on the site now to trespassers and workers. Appendix M of the Ship Berths FSSR (attached) provides a basis for the statement, in addition to a few points from Jerry Cooper, CHP regarding the human health risk posed by Po-210:

- The presence of Po-210 on rusted bollards is unrelated to Navy legacy operations. It was identified only because the Navy is looking for all sources of radioactivity at Hunters Point.
- Every rusted bollard in the Bay Area and elsewhere is likely to exhibit elevated alpha radioactivity due to adherence of Po-210. The human health risk is not only ubiquitous to rusted bollards, but likely extends to other rusted metal surfaces. The plate-out of Po-210 on outdoor metal structures is a recognized phenomenon that is readily observable primarily on galvanized metal surfaces or metal that is rusty, oxidized, or weathered.
- The human health risk posed by Po-210 is based on ingestion. As an alpha emitter, Po-210 does not pose an external radiation hazard.
- Po-210 is affixed to the metal surface. Based on the research and personal experience of Gilbane's CHP, he believes it is never found as readily removable (i.e., non-fixed) surface radioactivity.

- In order to be ingested, it would need to be scraped off the rusted metal surface and consumed. This is highly unlikely as an inadvertent, incidental act.
- Since Po-210 on rusted metal surfaces exists in the nature of NORM, our CHP is not aware of any isotope-specific measures that can/should be taken other than those generically applied for managing risks due to the presence of NORM in the environment.

Thanks,

Rachel

Rachel Hess | Environmental Project Manager | Gilbane 1655 Grant St., Suite 1200 | Concord, CA 94520 ph: 925.946.3105 | cell: 510.715.7842 | www.gilbaneco.comfax: 925.682.8125 | rhess@gilbaneco.com Please consider the environment before printing this email. CONFIDENTIALITY NOTICE:

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On 10/25/17, 12:17 PM, "Kayaci, Hamide G CIV" <hamide.kayaci@navy.mil<mailto:hamide.kayaci@navy.mil>> wrote:

I need this as soon as possible Rachel. Thanks.

----Original Message----From: Kayaci, Hamide G CIV

Sent: Tuesday, October 24, 2017 7:18 AM

To: Cooper, Jerry; Palser, Ed Cc: 'Hess, Rachel'; Acharya, Arvind

Subject: FW: Parcel D-1, FSSR Ship Berths - FW: bollard pictures

Could you please draft a statement to respond to following from EPA? Thanks!

----Original Message----

From: LEE, LILY [mailto:LEE.LILY@EPA.GOV] Sent: Monday, October 23, 2017 10:11 PM

To: Kayaci, Hamide G CIV

Subject: [Non-DoD Source] FW: Parcel D-1, FSSR Ship Berths - FW: bollard pictures

Dear Hamide,

Thank you for your message. Sorry it has taken so long to respond. We will submit formal comments, but before that I wanted to check in about any short term potential risks from exposures on the site now to trespassers and workers. Can you give me your justification for the statement that it does not pose a human health risk problem? Hunters Pt RODs don't have an RG for Po-210, so I am not sure what to compare it to for determining a safe level.

Thanks!

- Lily